

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard M. Gooch

PATENT APPLICATION

Serial No.:

Filed: December 1, 2000 (IA filing date)

For: COPYRIGHT PROTECTION SYSTEM

Preliminary Amendment

Commissioner for Patents

Washington, D.C. 20231

Sir:

Applicant in the above identified U.S. patent application submits the following Preliminary Amendment. Please enter the amendments to the claims prior to filing the U.S. application. The Preliminary Amendment is based on the claims existing in the parent international application (PCT/GB00/04616).

In the claims:

Please amend existing claims 1-8 and 10-20, cancel claims 9 and 21-25, and add new claim 26.

1. (Amended) A digital data [signal] arrangement partly stored on a storage medium comprising:

a first data set of source data and control data residing on the storage medium and written on a block by block basis, said source data being modified in accordance with said control data to generate an intermediate set of modified data when said [data signal] source data is copied by equipment adapted to read data on a block by block basis; and

a second data set associated with said first data set, said second data set being provided to enable modifications made, or modifications that otherwise would be made, to said first data set to generate said intermediate data set upon copying of said signal by said equipment, to be at least substantially negated.

2. (Amended) A digital data [signal] arrangement according to [Claim] claim 1, wherein access to said second data set is [controlled] apart from the medium.

3. (Amended) A digital data [signal] arrangement according to [Claim] claim 1 [or 2], wherein said second data set is encrypted, access to said second data set only being permitted once the second data set has been decrypted with an appropriate key.

4. (Amended) A digital data [signal] arrangement according to [any preceding] claim 1, wherein said intermediate data set is degraded[, for example of lower quality,] with respect to said first data set.

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5. (Amended) A digital data [signal] arrangement according to [any preceding] claim 1, wherein [said] the control data is such that copying of source data without generation of said intermediate data set is enabled when said digital data signal is copied by data reading equipment operable to stream data from a data signal.

6. (Amended) A digital data [signal] arrangement according to [any preceding] claim 1, wherein said source data comprises at least one of audio [and/or] and video data.

7. (Amended) A digital data [signal] arrangement according to [any preceding] claim 1, wherein the second data set comprises an encrypted copy of at least part of said source data.

8. (Amended) A digital data [signal] arrangement according to [any preceding] claim 1, wherein the second data set comprises an encrypted and [possibly] compressed copy of the whole of said source data.

10. (Amended) [A data carrier according to] The apparatus of claim [9] 26, wherein the data carrier has control data [comprises] comprising one or more computer program software portions which when executed in an execution environment cause said carrier to be treated incorrectly as a carrier of another type.

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11. (Amended) [A data carrier] The apparatus according to [Claim] claim 10, wherein the second data set comprises one or more computer program software portions which when executed in an execution environment correctly identify the type of said carrier.

12. (Amended) [A data carrier] The apparatus according to claim [9] 26, wherein the control data comprises modified table of contents (TOC) data that incorrectly specifies a starting address of said source data on said carrier.

13. (Amended) [A data carrier] The apparatus according to [Claim] claim 12, wherein the second data set comprises TOC data that correctly specifies a starting address of said source data on said carrier.

14. (Amended) [A data carrier] The apparatus according to [Claim] claim [9] 26, wherein the control data comprises timing data associated with respective portions of said source data, at least part of said timing data being recorded non-monotonically on said carrier.

15. (Amended) [A data carrier] The apparatus according to [Claim] claim 14, wherein the second data set comprises monotonically recorded timing data associated with respective portions on said source data.

16. (Amended) [A data carrier] The apparatus according to [Claim] claim [9] 26, wherein the control data introduces errors at predetermined points in said intermediate data set upon reading of said signal using equipment adapted to read data on a block by block basis.

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17. (Amended) [A data carrier] The apparatus according to [Claim] claim 16, wherein said second data set comprises portions of source data which may be used to replace said error inducing control data.

18. (Amended) A method of generating a digital data signal [according to any of claims 1 to 8, the method] comprising the steps of: inserting control data into a first data set of source data, and providing in association with said first data set a second data set, wherein upon copying of said signal by equipment adapted to read data from said carrier on a block by block basis said source data is modified in accordance with said control data to generate an intermediate set of modified data, and said second data set is provided to enable modifications made or modifications that otherwise would be made to said first data set upon copying thereof to be at least substantially negated.

19. (Amended) [A] The method of claim 18 further defined by providing a data carrier with the control data and the first data set with data written on a block by block basis, then copying data [on a] from the carrier [according to any of claims 9 to 17] by means of a copy operation [of] by equipment adapted to read data from said carrier on a block by block basis, the [method comprising the steps of:] copying [said signal to cause] causing said intermediate data set to be generated, accessing said second data set to retrieve data therefrom, and applying said retrieved data from said second data set to said intermediate data set to reverse modifications made in accordance with said control data upon copying of said signal.

20. (Amended) [A] The method of [copying data on a carrier according to any of claims to 18 by means of a copy operation of] claim 18 further defined by recording the first data set and the control data on a data carrier, the carrier readable on equipment adapted to read data from said carrier on a block by block basis, [the method comprising the steps of:] copying data from said second data set, modifying said read operation in accordance with said data copied from said second data set, and copying data from said first data set using the modified reading operation.

26. (New) A digital data arrangement according to claim 1, wherein the arrangement is recorded on a data carrier.

Remarks

Applicant requests entry of the above amendments in order to place the application in better form for allowance. A fresh set of all of the claims is enclosed herewith.

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below in an envelope as "Express Mail Post Office to Addressee" addressed to: Commissioner for Patents, BOX PCT, Washington, D.C. 20231

Signed: Sally Azevedo
Typed Name: Sally Azevedo

Date: March 25, 2002

Respectfully submitted,

John P. McGuire
Reg. No. 41,984

P.O. Box 2-E
San Jose, CA 95109-0005
(408) 297-9733

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Claims

1. A digital data arrangement partly stored on a storage medium comprising:

a first data set of source data and control data residing on the storage medium and written on a block by block basis, said source data being modified in accordance with said control data to generate an intermediate set of modified data when said source data is copied by equipment adapted to read data on a block by block basis; and

a second data set associated with said first data set, said second data set being provided to enable modifications made, or modifications that otherwise would be made, to said first data set to generate said intermediate data set upon copying of said signal by said equipment, to be at least substantially negated.

2. A digital data arrangement according to claim 1, wherein access to said second data set is apart from the storage medium.

3. A digital data arrangement according to claim 1, wherein said second data set is encrypted, access to said second data set only being permitted once the second data set has been decrypted with an appropriate key.

4. A digital data arrangement according to claim 1, wherein said intermediate data set is degraded with respect to said first data set.

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5. A digital data arrangement according to claim 1, wherein the control data is such that copying of source data without generation of said intermediate data set is enabled when said digital data signal is copied by data reading equipment operable to stream data from a data signal.

6. A digital data arrangement according to claim 1, wherein said source data comprises at least one of audio and video data.

7. A digital data arrangement according to claim 1, wherein the second data set comprises an encrypted copy of at least part of said source data.

8. A digital data arrangement according to claim 1, wherein the second data set comprises an encrypted and compressed copy of the whole of said source data.

9. [Cancelled.]

10. The apparatus of claim 26 wherein the data carrier has control data comprising one or more computer program software portions which when executed in an execution environment cause said carrier to be treated incorrectly as a carrier of another type.

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11. The apparatus according to claim 10, wherein the second data set comprises one or more computer program software portions which when executed in an execution environment correctly identify the type of said carrier.

12. The apparatus according to claim 26, wherein the control data comprises modified table of contents (TOC) data that incorrectly specifies a starting address of said source data on said carrier.

13. The apparatus according to claim 12, wherein the second data set comprises TOC data that correctly specifies a starting address of said source data on said carrier.

14. The apparatus according to claim 26, wherein the control data comprises timing data associated with respective portions of said source data, at least part of said timing data being recorded non-monotonically on said carrier.

15. The apparatus according to claim 14, wherein the second data set comprises monotonically recorded timing data associated with respective portions of said source data.

16. The apparatus according to claim 26, wherein the control data introduces errors at predetermined points in said intermediate data set upon reading of said signal using equipment adapted to read data on a block by block basis.

17. The apparatus according to claim 16, wherein said second data set comprises portions of source data which may be used to replace said error inducing control data.

18. A method of generating a digital data signal comprising the steps of: inserting control data into a first data set of source data, and providing in association with said first data set a second data set, wherein upon copying of said signal by equipment adapted to read data from said carrier on a block by block basis said source data is modified in accordance with said control data to generate an intermediate set of modified data, and said second data set is provided to enable modifications made or modifications that otherwise would be made to said first data set upon copying thereof to be at least substantially negated.

19. The method of claim 18 further defined by providing a data carrier with the control data and the first data set with data written on a block by block basis, then copying data from the carrier by means of a copy operation by equipment adapted to read data from said carrier on a block by block basis, the copying causing said intermediate data set to be generated, accessing said second data set to retrieve data therefrom, and applying said retrieved data from said second data set to said intermediate data set to reverse modifications made in accordance with said control data upon copying of said signal.

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20. The method of claim 18 further defined by recording the first data set and the control data on a data carrier, the carrier readable on equipment adapted to read data from said carrier on a block by block basis, copying data from said second data set, modifying said read operation in accordance with said data copied from said second data set, and copying data from said first data set using the modified reading operation.

21. [Cancelled.]

22. [Cancelled.]

23. [Cancelled.]

24. [Cancelled.]

25. [Cancelled.]

26. A digital data arrangement according to claim 1, wherein the arrangement is recorded on a data carrier.